

### REMARKS

Claims 40-42, 55, 56, 58, 59, 61-65, 67-69 and 71-75 are pending and stand rejected. Claims 40-42 and 55-56 are rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Claims 40-42 and 55-56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,243,331 to McCausland et al. ("McCausland") in view of U.S. Patent No. 5,915,209 to Lawrence ("Lawrence"), U.S. Patent No. 5,809,483 to Broka et al. ("Broka") and U.S. Patent No. 5,101,353 to Lupien et al. ("Lupien"). Claims 61-65, 67-69, 71-72 and 74-75 are rejected under 35 U.S.C. § 103(a) as being unpatentable over McCausland in view of Lawrence, Lupien, and U.S. Patent No. 7,231,363 to Hughes et al. ("Hughes"). Claims 58-59 are rejected under 35 U.S.C. § 103(a) as being unpatentable over McCausland in view of U.S. Patent No. 6,343,278 to Jain et al. ("Jain") and Lupien.

Upon entry of this paper, claims 40-42, 55, 56, 58, 59, 61-65, 67-69 and 71-75 will be pending in the application and are presented for consideration. Applicants hereby amend claims 40, 42, 58, 61, 65, 67-69 and 71-75. These claim amendments do not introduce new matter to the application. Support for the claim amendments can be found throughout the specification, including, e.g., at ¶¶ [0073]-[0080], [0089]-[0127], [0222], [0225], [0235] and [0250] of U.S. Published Patent Application No. 2002/0156719.

#### **I. Rejection of Claims 40-42 and 55-56 under 35 U.S.C. § 112, ¶ 2**

The Office Action rejected claims 40-42 and 55-56 under 35 U.S.C. § 112, ¶ 2 as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. (Office Action, p. 3.) Specifically, the Office Action refers to claim 40, lines 11-15: "(enabling by the trading...**at least one of the first and second traders** to...specifying **at least one of a first and second amount**, wherein **the second amount** is disclosed to **other traders**;)” as being unclear. *Id.* (emphasis in original).

In light of this rejection, Applicants have amended claim 40. Claim 40 now recites, in pertinent part:

enabling, by the electronic trading system, at least one of the first trader and the second trader to complete at least one of a first order and a second order on one side of a prospective trade for one of the

plurality of bond instruments by selecting an order from the at least one of the first list of orders and the second list of orders, wherein the selected order includes at least one of a first amount and a second amount and the second amount is displayed to users of the system.

Support for this amendment can be found, for example, in ¶¶ [0076], [0222], [0225], [0235] and [0250] of U.S. Published Patent Application No. 2002/0156719.. According to Applicants' disclosure, a trader using the claimed system can complete an order by selecting an order from a list of orders. See ¶ [0222]. Orders are assigned an amount, or quantity (e.g., the number of bonds or securities to buy or sell). See ¶¶ [0225], [0235]. Users can specify an amount for the order, where a portion of the amount is revealed to other users of the system and the remainder of the amount is held in reserve. See, e.g., ¶¶ [0076], [0250].

In light of the above remarks, Applicants respectfully request that the rejection of claims 40-42 and 55-56 under 35 U.S.C. § 112, second paragraph, be reconsidered and withdrawn.

## **II. Rejection of Claims 40-42 and 55-56 under 35 U.S.C. § 103(a)**

The Office Action rejected claims 40-42 and 55-56 under 35 U.S.C. § 103(a) as being unpatentable over McCausland in view of Lawrence, Broka and Lupien. (Office Action, pp. 4-10.) For a rejection under § 103 to be proper, the references must expressly or impliedly suggest the claimed invention taken as a whole. Additionally, the combination must not render either reference inoperable. As set forth below, McCausland fails to teach or suggest each and every element of amended independent claim 40, from which claims 41, 42, 55 and 56 depend. Lawrence, Broka and Lupien each fails to cure the defects of McCausland.

### ***a. McCausland Fails to Teach Each and Every Element of Amended Claim 40***

The Office Action states that McCausland does not explicitly disclose certain order conditions<sup>1</sup> recited in claim 40. (Office Action at 6.) The Office Action also states that McCausland does not explicitly disclose the "receiving...authorization" step, the "transmitting" step, the "enabling...at least one of the first and second traders to complete..." step, and the "matching" step. *Id.* at 6-7.

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<sup>1</sup> The Office Action states, "McCausland does not explicitly disclose order type ("Fill or Kill", "Minimum Fill", "Lots Of", "Show Only", "Good Until a time of day", or "Good For a period of time")." (*Id.* at 6.)

Furthermore, Applicants respectfully submit that McCausland fails to teach or suggest at least the following additional elements of Applicants' amended claim 40:

preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market.<sup>2</sup>

McCausland describes a "computer system and program for trading securities comprising a central host computer system, plural personal computer-based trading stations geographically remote from the host system, a communications network connecting the trader stations to the host system, and a special-function keypad attached to the trading station for interacting with the system." (McCausland at 2:40-47.) McCausland describes order entry and execution as follows:

All orders in the trading system **10** are limit orders as that term is understood in the art and are "live" until canceled. The system accepts one bid and one offer per issue for that trader, and any change in market price or size cancels the previous order.

...

To enter an order (Bid or Offer) or execute an order (Hit or Take), a trader follows the following steps. First, the trader highlights the desired issue. Second, the trader presses one of the action keys **226**, **228**, **230** or **232**: BID, OFFER, HIT or TAKE. The selected action is displayed on the Action Line. To change the size or value of the requested transaction, the trader can type a size next to the action if desired, or keep the default. The [Enter] key is then pressed. The order for the issue selected is displayed in a small window on the trader's page. To change a price, the trader can tick the price up and down by pressing [↑] or [↓] while the issue is in the window, until the desired level is reached. Long Hand Order Entry may also be accomplished. Finally, the trader presses [Confirm] to complete the order or press [Reject] to cancel the order.

*Id.* at 22:40 – 23:29 (emphasis added).

In contrast to McCausland's manual order entry and execution technique, Applicants' amended claim 40 recites "preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and

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<sup>2</sup> The Office Action concedes that McCausland does not explicitly disclose "presenting [sic] a match responsive to said predetermined order conditions." (*Id.* at 7 (emphasis added).)

result in a locked or crossed market.” As set forth in Applicants’ disclosure, “[t]he service matches trading orders according to the following rules: All orders are matched in a strict price/time priority. Within each price queue, each order has a time priority established by the time of entry for the quantity disclosed to other users. Order conditions may prevent a match from occurring. In such an event, a locked or crossed market may result.” (§ [0090].) McCausland does not teach or suggest preventing a match of trading orders when order conditions are invalid and result in a locked or crossed market. Instead, McCausland merely describes use of a keypad by a trader to accept bids or offers, thereby executing an order.

*b. Broka Fails to Remedy the Deficiencies of McCausland*

As discussed above, McCausland fails to teach or suggest each and every element of amended claim 40, from which claims 41, 42, 55 and 56 depend. Broka fails to cure the defects of McCausland, at least because Broka fails to teach or suggest “preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market” as recited in Applicants’ amended claim 40.

Broka relates to “[a] system for monitoring information about debt securities and reporting trades in the debt securities market.” (Broka, Abstract.) Specifically, Broka describes a “regulated, computerized bond trading system has been developed to gather quote and trade information from several bond traders and other users, and to organize and disseminate such information quickly and reliably.” *Id.* at 1:55-60 (emphasis added).

Broka’s system provides five main functions, described as follows:

Trade management is mainly concerned with reporting trades. A trade report occurs when users enter bond trade information into the FIPS system. FIPS’ basic trade reporting functions include entering a trade report, modifying a trade report, and disseminating a report. Other functions include browsing, statistics gathering, and summary updating.

Quote management is mainly concerned with updating bid and ask prices. A quote in FIPS occurs when a user enters a bid and/or offer for a particular bond into FIPS. FIPS’ quote management functions include entering, modifying, withdrawing, restoring, and removing quotes. Additional quote management functions include

monitoring quote activity, disseminating quote data, and setting market alerts.

Market management allows a user to form groups of specific bond issues, which then become the user's "markets," and to monitor bond information changes directly in the group. Such groups are referred to as "Minder" groups.

Directory services allow users to search databases using different criteria. Two such databases are bond issue and FIPS participant. For example, a user can browse the bond database to find issues for which the user has made quotes or to find issues of a given coupon rate and maturity year. A user can browse the FIPS participant database to list brokers, dealers, or view-only users.

FIPS utilities allowing users to customize certain interfaces and data presentation formats. For example, user may select certain issues to be grouped into "Minder" groups.

*Id.* at 5:39-67 (emphasis added). As set forth above, Broka is directed toward a system for gathering trade and quote data entered by users, and making that data available to the users via reports and databases. Broka simply fails to teach or suggest "preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market" as recited in amended claim 40.

*c. Lawrence Fails to Remedy the Deficiencies of McCausland and Broka*

As discussed above, McCausland and Broka, alone or in combination, fail to teach or suggest each and every element of amended claim 40, from which claims 41, 42, 55 and 56 depend. Lawrence fails to cure the defects of McCausland and Broka.

Lawrence relates to "a computerized municipal bond trading system having the capability to conduct a private electronic auction of bid wanteds between a central market-maker and multiple remote clients who are prospective bidders." (Lawrence at 3:36-40.) Lawrence specifically describes the trading system as follows:

A selling trader 14, who may be an owning institution or individual but is preferably an SEC-registered securities broker dealer, transmits one or more job lots 16 of bonds for sale to the municipal bond trading system 10 maintained by a broker, who functions as a "market-maker," at any time convenient to the selling trader 14.

Transmission of job lots 16 to the municipal bond trading system 10 can be accomplished in any conventional manner; written, faxed, telephoned, or the equivalent, but is preferably electronically effected in a file that can be directly processed by the municipal bond trading system 10, for example, via confidential e-mail, as are communications from the market-maker to the seller, over data lines 15. Most preferably, the seller is computer-linked to the municipal bond trading system 10 on a LAN or a WAN.

After appropriate central processing employing the municipal bond trading system 10, bid wanteds are circulated to buying traders 12 in order to solicit bids 18. These functions are described in greater detail herein below. Bids 18 are received from one or more buying traders 12 and transmitted to the seller by any suitable means, such as fax or computer network, as described above, for further processing. If the selling trader 14 accepts the bid 18, the brokers' broker marks the lot "for sale" and completes the execution, preferably with the assistance of the municipal bond trading system 10, and then transmits customary buy and sell tickets 20 to the selling trader 14 for their internal processing.

*Id.* at 6:6-32 (emphasis added).

Lawrence simply fails to teach or suggest "preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market" as recited in amended claim 40.

*d. Lupien Fails to Remedy the Deficiencies of McCausland, Broka, and Lawrence*

As discussed above, McCausland, Broka and Lawrence, alone or in combination, fail to teach or suggest each and every element of amended claim 40, from which claims 41, 42, 55 and 56 depend. Lupien fails to cure the defects of McCausland, Broka and Lawrence.

Lupien relates to an "automated securities trading and portfolio management system for use by investment managers." (Lupien at 2:60-62.) Lupien describes order execution as follows:

Orders are executed by the system on a price/time priority basis within the system in step 44, although orders could also be executed on a price/size/time priority basis. All orders generated are forwarded to controller CPU 10 which presents them together with those from other clients for display to each client or client process in a manner discribed [sic] below. If a purchase order matches a sale order (in whole or in part) created for another client portfolio the controller will match the two and a trade will occur which will be reported to the markets as well as to each

*client's portfolio trading algorithm.* If orders are not executed within the system, control passes to block 46 where controller CPU 10 decides, based on recent trading history, where and how much of each order to place on which external automated market, broker, exchange and/or its own network.

*Id.* at 11:44-60 (emphasis added). When matching orders, Lupien states that:

A match occurs when a buy order and a sell order agree on security name, price, size and terms of the trade. If a match is detected, both the buy and sell sides of the order are at block 84. *In the case of external auto-traders, acceptance is tentative and becomes final only when confirmation from the external auto-trader is received by the system.* Since external auto-traders must themselves confirm a match there will be a limited period of time before acceptance or rejection, and, therefore, the tentative acceptance procedure is necessary. *By contrast, internal auto-traders accept matches immediately in real time without tentative acceptance.* If either side of the trade rejects the match, the order is reopened at block 86 while the order of the rejecting side is newly time-stamped and moved to the rear of its price-priority group. The order of the accepting side is not requeued.

*Id.* at 13:25-41 (emphasis added). Lupien's matching techniques either require confirmation from an external trader before accepting a match or accept matches immediately. Lupien does not disclose the step of "preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market" as recited in amended claim 40.

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For at least the reasons set forth above, the cited references McCausland, Broka, Lawrence and Lupien, alone or in combination, fail to teach or suggest each and every element of Applicants' amended claim 40. In addition, the cited references fail to teach or suggest each and every element of claims 41, 42, 55 and 56 because those claims depend either directly or indirectly from claim 40. Therefore, Applicants respectfully request withdrawal of this ground of rejection.

### **III. Rejection of Claims 61-65, 67-69, 71-72 and 74-75 under 35 U.S.C. § 103(a)**

The Office Action rejected claims 61-65, 67-69, 71-72 and 74-75 under 35 U.S.C. § 103(a) as being unpatentable over McCausland in view of Lawrence, Lupien and U.S. Patent No.

7,231,363 to Hughes et al. ("Hughes"). (Office Action, pp. 10-19.) For a rejection under § 103 to be proper, the references must expressly or impliedly suggest the claimed invention taken as a whole. Additionally, the combination must not render either reference inoperable. As set forth below, McCausland fails to teach or suggest each and every element of amended claim 61, from which claims 62-65 and 67-69 depend, and amended claim 71, from which claims 72 and 74-75 depend. Lawrence, Lupien, and Hughes each fails to cure the defects of McCausland.

*a. McCausland Fails to Teach Each and Every Element of Amended Claims 61 & 71*

McCausland fails to teach or suggest each and every element of Applicants' amended claims 61 and 71. For similar reasons as those set forth above, McCausland fails to teach or suggest the following element found in both amended claim 61 and amended claim 71:

preventing, by the electronic trading system, a match of the buy orders and the sell orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market.

*See* Section II.a, *supra*.

*b. Lawrence Fails to Remedy the Deficiencies of McCausland*

As discussed above, McCausland fails to teach or suggest each and every element of amended claims 61 and 71. *See* Section III.a, *supra*. For similar reasons as those set forth above regarding claim 40, Lawrence fails to cure the defects of McCausland, at least because Lawrence fails to teach or suggest "preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market" as recited in amended claims 61 and 71. *See* Section II.c, *supra*.

*c. Lupien Fails to Remedy the Deficiencies of McCausland and Lawrence*

As discussed above, McCausland and Lawrence, alone or in combination, fail to teach or suggest each and every element of amended claims 61 and 71. *See* Sections III.a and b, *supra*. For similar reasons as those set forth above regarding claim 40, Lupien fails to cure the defects of McCausland and Lawrence, at least because Lupien fails to teach or suggest "preventing, by the electronic trading system, a match of the received trading orders when the predetermined order



conditions associated with the match are invalid and result in a locked or crossed market” as recited in amended claims 61 and 71. *See* Section II.d, *supra*.

d. *Hughes Fails to Remedy the Deficiencies of McCausland, Lawrence and Lupien*

As discussed above, McCausland, Lawrence and Lupien, alone or in combination, fail to teach or suggest each and every element of amended claims 61 and 71. *See* Sections III.a-c, *supra*. Hughes fails to cure the defects of McCausland, Lawrence and Lupien.

Hughes relates to “systems and methods...for supporting the trading of bonds in a computerized system using broker dealers as intermediaries.” (Hughes, Abstract.) Hughes describes the order matching of FIG. 8 as follows:

The matching process is performed for broker dealers, that is, for bids and offers received by a broker dealer. The system performs the matching by first generating a list of candidate offers that partially match a specific order based on, in one embodiment, CUSIP and price, step 240, accounting in price for any markup applied by that broker dealer to the specific counterparty submitting each candidate offer. *If the list of candidate offers contains only one offer, this offer is deemed to match and the system updates the order and trade files accordingly to reflect that a trade has occurred,* step 262. If the offer was subject, the parties are first notified and confirmation is requested before the trade is executed, as explained above.

If the candidate list contains multiple orders, one of such orders must be selected. In some embodiments, the party that generated the original order can specify whether it prefers a match to occur on price or on amount of securities in the trade. *If the user specified a match on price, step 244, the candidate list is searched for one or more orders at the best price,* step 246. If multiple such orders at the best price are found, step 248, the system selects the one of such orders having the largest amount of securities, step 250. Otherwise, the order at the best price is selected from the list, step 252. *If the user specified a match based upon amount, the candidate list is searched for orders at the highest amount,* step 254. If multiple such orders at the highest amount are found, step 256, the order with the best price is selected, step 258; otherwise, the order at the highest amount is selected, step 260. *If in either instance after narrowing the list based on price and amount the candidate list still contains multiple orders, one of the orders is selected at random or based on an earlier time of receipt of the order. The selected order is used for the transaction, and the order*

files and trade files are updated accordingly to reflect that the transaction has occurred, step 262.

*Id.* at 15:35 – 16:3 (emphasis added).

In contrast to Hughes's matching techniques, amended claims 61 and 71 recite "preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market." As set forth in Applicants' disclosure, "[t]he service matches trading orders according to the following rules: All orders are matched in a strict price/time priority. Within each price queue, each order has a time priority established by the time of entry for the quantity disclosed to other users. Order conditions may prevent a match from occurring. In such an event, a locked or crossed market may result." (¶ [0090].) Hughes does not teach or suggest preventing a match of trading orders when order conditions are invalid and result in a locked or crossed market. Instead, Hughes searches for orders according to either price or amount and selects the order with the best value for that variable. If multiple orders exist, then Hughes selects an order "at random or based on an earlier time of receipt of the order." *Id.* at 15:66-67.

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For at least the reasons set forth above, the cited references McCausland, Lawrence, Lupien and Hughes, alone or in combination, fail to teach or suggest each and every element of Applicants' amended claims 61 and 71. In addition, the cited references fail to teach or suggest each and every element of claims 62-65, 67-69, 72 and 74-75 because those claims depend directly or indirectly from either claim 61 or claim 71. Therefore, Applicants respectfully request withdrawal of this ground of rejection.

#### **IV. Rejection of Claims 58-59 and 73 under 35 U.S.C. § 103(a)**

The Office Action rejected claims 58-59 and 73 under 35 U.S.C. § 103(a) as being unpatentable over McCausland in view of Lupien and U.S. Patent No. 6,343,278 to Jain et al. ("Jain"). (Office Action, pp. 19-23.) For a rejection under § 103 to be proper, the references must expressly or impliedly suggest the claimed invention taken as a whole. Additionally, the combination must not render either reference inoperable. As set forth below, McCausland fails

to teach or suggest each and every element of amended claim 58, from which claims 59 and 73 depend. Lupien and Jain each fails to cure the defects of McCausland.

*a. McCausland Fails to Teach Each and Every Element of Amended Claim 58*

McCausland fails to teach or suggest each and every element of Applicants' amended claim 58. For similar reasons as those set forth above, McCausland fails to teach or suggest the following element found in amended claim 58:

preventing, by the electronic trading system, a match of the buy orders and the sell orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market.

*See Section II.a, supra.*

*b. Lupien Fails to Remedy the Deficiencies of McCausland*

As discussed above, McCausland fails to teach or suggest each and every element of amended claim 58. *See Section IV.a, supra.* For similar reasons as those set forth above regarding claims 40, 61 and 71, Lupien fails to cure the defects of McCausland, at least because Lupien fails to teach or suggest "preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market" as recited in amended claim 58. *See Sections II.d and III.c, supra.*

*c. Jain Fails to Remedy the Deficiencies of McCausland and Lupien*

As discussed above, McCausland and Lupien, alone or in combination, fail to teach or suggest each and every element of amended claim 58. *See Sections IV.a-b, supra.* Jain fails to cure the defects of McCausland and Lupien.

Jain relates to a "computerized trading system for trading financial instruments or other commodities between traders at trader terminals, wherein the trading system facilitates manual entry and possible revision of a group of related orders for derivatives based on a common underlying currency or other commodity." (Jain at 1:66 – 2:4.) Jain describes order matching as follows:

Orders that are compatible are matched by the dealing system.

Newly submitted bid and buy orders are matched against outstanding offer orders. Newly submitted sell and offer orders are matched against outstanding bid orders.

...

Any order submitted into the system is first matched against all existing bids and offers at the maker's Arbitrator. The existing orders are considered in price/time order in search of compatible orders. If a compatible order is found, the two orders are "matched" and a deal is initiated for the amount equal to the minimum of the two order amounts. The process continues until the remaining three-month equivalent amount of the submitted order becomes less than the value of the minimum notional amount parameter, or until there are no compatible orders.

*Id.* at 13:4-7, 18-27 (emphasis added).

In contrast to Jain's order matching techniques, amended claim 58 recites "preventing, by the electronic trading system, a match of the received trading orders when the predetermined order conditions associated with the match are invalid and result in a locked or crossed market." As set forth in Applicants' disclosure, "[t]he service matches trading orders according to the following rules: All orders are matched in a strict price/time priority. Within each price queue, each order has a time priority established by the time of entry for the quantity disclosed to other users. Order conditions may prevent a match from occurring. In such an event, a locked or crossed market may result." (§ [0090].) Jain does not teach or suggest preventing a match of trading orders when order conditions are invalid and result in a locked or crossed market. Instead, Jain merely performs a compatibility determination between newly submitted sell and offer orders against outstanding bid orders, and compatible orders are considered in price/time order.

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For at least the reasons set forth above, the cited references McCausland, Lupien and Jain, alone or in combination, fail to teach or suggest each and every element of Applicants' amended claim 58. In addition, the cited references fail to teach or suggest each and every element of claims 59 and 73 because those claims depend directly or indirectly from claim 58. Therefore, Applicants respectfully request withdrawal of this ground of rejection.

**V. CONCLUSION**

Applicants' discussion of particular positions of the Office Action does not constitute a concession with respect to any positions that are not expressly contested by the Applicants. Applicants' emphasis of particular reasons why the claims are patentable does not imply that there are not other sufficient reasons why the claims are patentable.

In view of the foregoing remarks and the inability of the prior art to anticipate, suggest or make obvious the subject matter *as a whole* of the invention disclosed and claimed in this application, all the claims are submitted to be in a condition for allowance, and notice thereof is respectfully requested. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

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